



Command
Tubular Products

Size: 4 1/2"
Weight: 16.6 lbs/ft
Grade: S-135
Range: III (43.5')

Drill Pipe Specs

Connection: CET43

Tube

	New		Premium	
	in	mm	in	mm
OD	4.500	114.3	4.365	110.9
Wall thickness	0.337	8.6	0.270	6.8
ID	3.826	97.2	3.826	97.2
	ft-lbs	N-m	ft-lbs	N-m
Torsional strength	55,450	75,230	43,450	58,950
80% Torsional strength	44,360	60,180	34,760	47,160
	lbs	daN	lbs	daN
Tensile strength	595,000	265,300	468,300	208,800
	psi	kPa	psi	kPa
Internal Pressure capacity	17,690	121,970	16,180	111,560
Collapse capacity	16,770	115,630	10,960	75,570
	in ²	mm ²	in ²	mm ²
Cross sectional area body	4.407	2844	3.469	2238
Cross sectional area OD	15.904	10261	14.966	9655
Cross sectional area ID	11.497	7417	11.497	7417
	in ³	mm ³	in ³	mm ³
Section modulus	4.271	69995	3.347	54845
Polar section modulus	8.543	139989	6.694	109690

Tool Joint

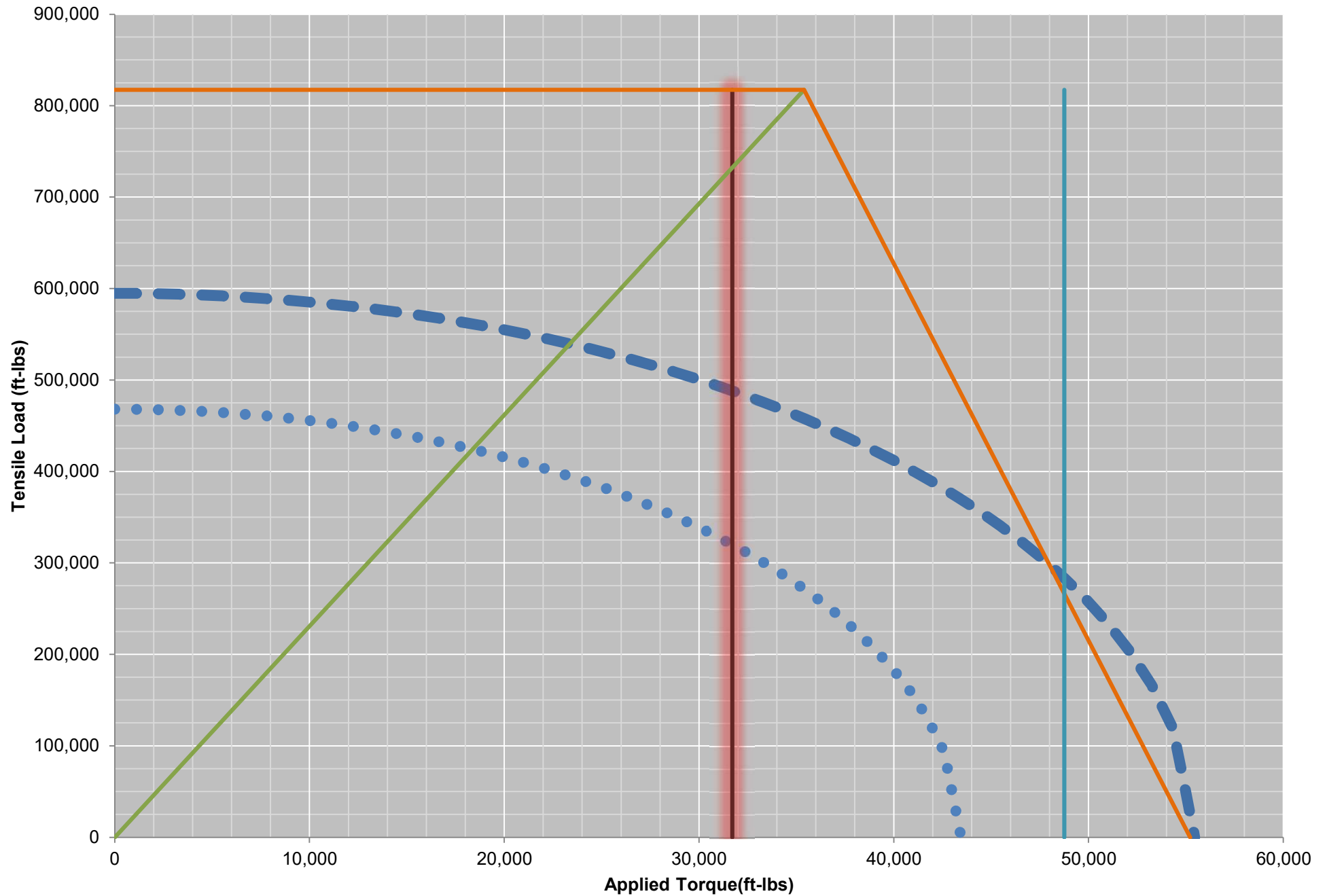
	New		Premium	
	psi	kPa	psi	kPa
Yield Strength	130,000	896,320	130,000	896,320
	in	mm	in	mm
OD	5.375	136.5	5.117	130.0
ID	3.000	76.2	3.063	77.8
Pin length	11.0	279.4	6.0	152.4
Box length	14.0	355.6	6.0	152.4
	ft-lbs	N-m	ft-lbs	N-m
Torsional Strength	48,800	66,200	36,400	49,400
Extended Make-up Torque	34,160	46,300	25,500	34,600
Recommended Make-up Torque	31,700	43,000	25,500	34,600
Min Make-up Torque	28,100	38,100	21,400	29,000
	lbs	daN	lbs	daN
Tensile strength	817,300	364,400	513,700	229,100
Tool joint/Drill pipe torsional ratio	0.88		0.84	

Drill Pipe Assembly with Connection

	lbs/ft	kg/m
Adjusted weight	17.05	25.42
	ft	m
Approximate length	43.50	13.26
	gal/ft	m ³ /m
Fluid displacement	0.261	0.003239
Fluid capacity	0.586	0.007280
	in	mm
Drift size	2.8750	73

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Combined Load Curve for 4 1/2" S-135 16.6 lbs/ft Drill Pipe with CET43 connections





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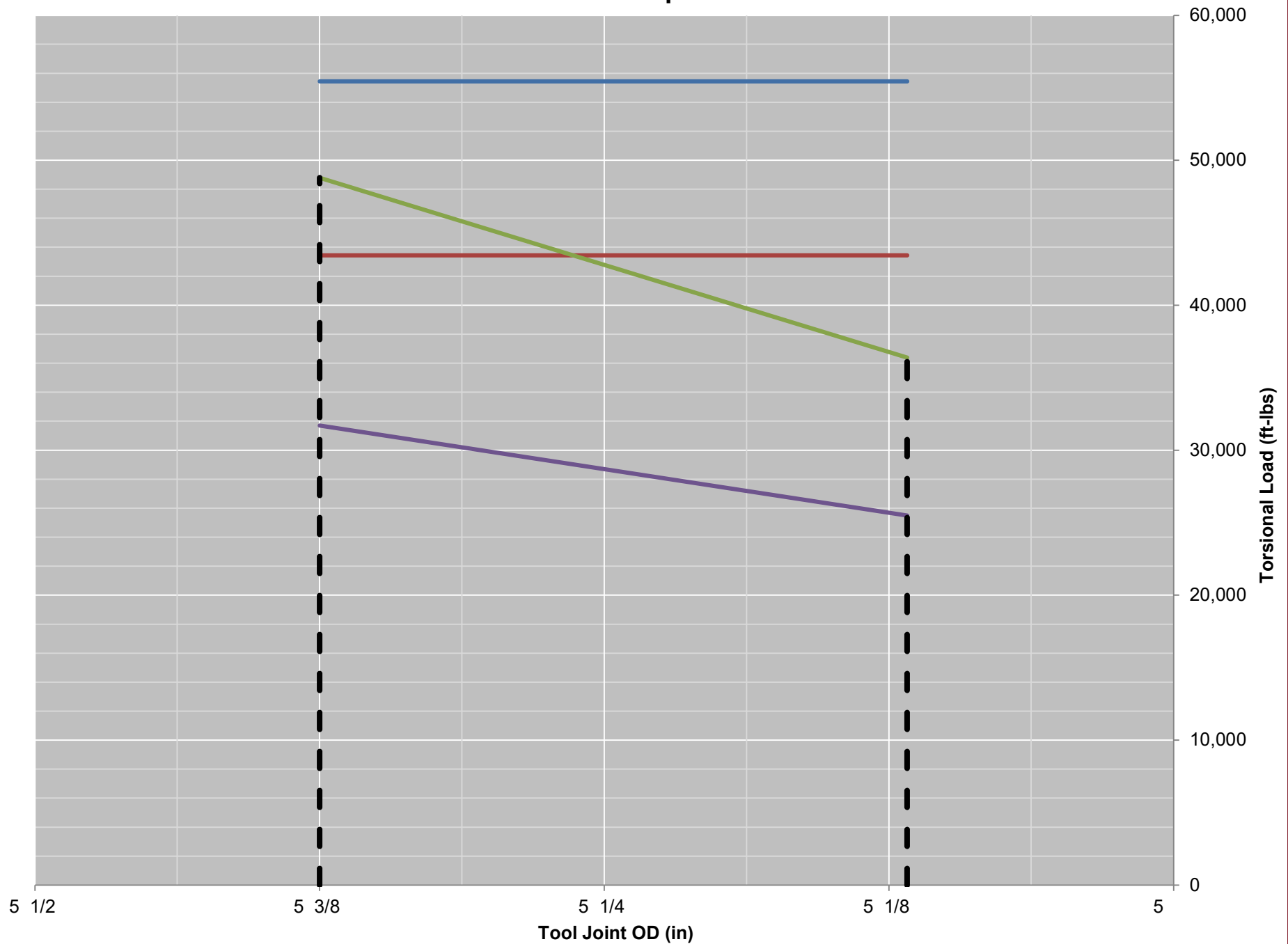
Combined Load Data

Connection: CET43

Tool Joint	Tube			
	New		Premium	
New Pin Yield	Torque ft-lbs	Tension lbs	Torque ft-lbs	Tension lbs
Torque (ft-lbs) 55,220	0	595,004	0	468,297
Tension (lbs) 817,300	1,260	594,850	988	468,176
	2,520	594,389	1,975	467,813
	3,781	593,620	2,963	467,207
New Box Yield	5,041	592,541	3,950	466,358
Torque (ft-lbs) 48,750	6,301	591,150	4,938	465,263
Tension (lbs) 817,300	7,561	589,447	5,925	463,922
	8,822	587,427	6,913	462,333
	10,082	585,088	7,900	460,491
	11,342	582,425	8,888	458,396
New Shoulder Separation	12,602	579,435	9,875	456,042
Torque (ft-lbs) 35,390	13,863	576,112	10,863	453,427
Tension (lbs) 817,300	15,123	572,451	11,850	450,545
	16,383	568,444	12,838	447,391
	17,643	564,085	13,825	443,960
	18,903	559,365	14,813	440,245
	20,164	554,275	15,800	436,238
	21,424	548,805	16,788	431,933
	22,684	542,943	17,775	427,319
	23,944	536,676	18,763	422,387
	25,205	529,991	19,750	417,124
	26,465	522,871	20,738	411,520
	27,725	515,297	21,725	405,559
	28,985	507,250	22,713	399,225
	30,245	498,707	23,700	392,501
	31,506	489,642	24,688	385,365
	32,766	480,025	25,675	377,796
	34,026	469,823	26,663	369,765
	35,286	458,995	27,650	361,242
	36,547	447,498	28,638	352,192
	37,807	435,277	29,625	342,573
	39,067	422,270	30,613	332,335
	40,327	408,403	31,600	321,420
	41,588	393,583	32,588	309,755
	42,848	377,699	33,575	297,252
	44,108	360,611	34,563	283,801
	45,368	342,138	35,550	269,259
	46,628	322,041	36,538	253,440
	47,889	299,994	37,525	236,085
	49,149	275,531	38,513	216,828
	50,409	247,936	39,500	195,104
	51,669	216,012	40,488	169,972
	52,930	177,440	41,475	139,603
	54,190	126,265	42,463	99,302
	55,450	0	43,450	0

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Tool Joint Wear for 4 1/2" S-135 16.6 lbs/ft Drill Pipe with CET43 connections





Connection: CET43

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